

REMARKS

By the above actions, claims 2-10 have been amended. In view of the actions taken and the following remarks, reconsideration of this application is requested.

The preamble of claims 2-10 was objected to and a modification thereof proposed by the Examiner. Since the Examiner's proposed amendment of the preamble of these claims has been adopted, withdrawal of this objection is in order and is requested.

Claims 1, 2 & 7-10 have been rejected under 35 USC § 102 as being anticipated by the disclosure of the Laimpinen et al. patent, while claim 9 was rejected under § 103 as being unpatentable over this reference. These rejections are inappropriate for the following reasons.

First, it is pointed out that present invention is directed to a submerged evaporator and not to a heat exchanger. In direct contrast, the Laimpinen et al. patent is directed to a heat exchanger in which absorption and condensation occur and not to a submerged evaporator. Figure 6 of the Laimpinen et al. patent which has been cited by the Examiner is described at column 6, line 21 to column 7, line 5 wherein it is stated at column 6, line 33 that "the purpose of the dispersing plate 21 is to divide water equally to all channel plates 17 *of the heat exchanger* so that a thin even moisture film with be formed on them" (emphasis added). The heat exchanger of the Laimpinen et al. patent and its disadvantages are described in the last full paragraph of page 4 of the present application.

It is also noted that while claim 1 recites "the integrated plate heat exchanger is integrated with the evaporator and made with an outer contour that substantially follows the lower contour of the casing and the liquid level of the primary refrigerant" the Laimpinen et al. patent shows a circular cylindrical tank (shell 3) in which a heat exchanger 1, 2 of much smaller diameter is located. Thus, while the drawing of the present application show plates 4 with an outer contour that follows that of casing 6, that is not the case for the heat exchanger plates of the Laimpinen et al. patent since as clearly shown in Fig. 6, the distance between the heat exchanger plate 1, 2, and the casing 3 increases while that is not the case for those of the present invention that follow the casing contour. Also, while the plates of the present invention are flat at their top side so that the top of the outer contour follows the liquid level, the circular contour of the plates of the Laimpinen et al. patent clearly cannot follow the

liquid level which would never be curved and presumably is represented by horizontal line just above the apex of the heat exchanger 1, 2.

With regard to claim 2, this claim recites the fact that:

the longitudinal sides of the plate heat exchanger are closed for inflow or outflow of the primary refrigerant between the plates of the plate heat exchanger, and wherein **the bottom** of the plate heat exchanger there is **provided at least one opening through which the primary refrigerant flows in** between the plates of the plate heat exchanger (emphasis added).

However, as can be seen from Figs. 6 & 7, and as is described in the Laimpinen et al. patent, the inflow direction is the direct opposite from that of the present invention, water flowing in at the top via inlet 11 and vapor entering at the top through inlet 13 and out at connectors 14.. Furthermore, since the separator 21, 22 and absorption agent 16 are located above the heat exchanger, one could not reverse the flow directions.

Claim 10 recites the provision of a “suction manifold disposed in the ‘dry’ part of the casing” and the Examiner has incorrectly identifies the dispersing plate 21 as applicants’ suction manifold without identifying the basis for this assertion. However, no negative pressure is disclose as being associated with the dispersing plate 21, nor is there any apparent reason for that to be the case. Applicants provide a suction manifold because of the desired bottom-to-top flow direction in which the evaporated refrigerant is drawn. On the other hand, in the Laimpinen et al. patent, a liquid film is formed from the vapor that is condensed and bound to the absorption agent and runs along the plates to the bottom where the mixture of water and absorption agent are withdrawn; a suction manifold at the top of the unit would interfere with the intended manner of operation of the device of the Laimpinen et al. patent.

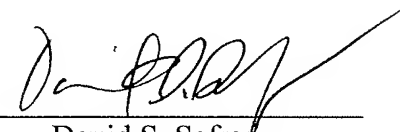
Accordingly, it is submitted that the Laimpinen et al. patent cannot even render the present invention obvious, let alone anticipate same. As such withdrawal of the rejections based on the Laimpinen et al. patent under §§ 102/103 is in order and is hereby requested.

Claim 3 has been rejected under 35 USC § 103 based on the combination of the Laimpinen et al. patent with the Gaylord, Jr. patent, in combination with the Kontu patent relative to claim 4, and in combination with the Ertinger patent relative to claims 5 & 6. However, since none of these three references relates to a submerged evaporator and since none of these references can overcome the above described deficiencies of the Laimpinen et al. patent relative to applicants’ claimed invention, no combination of these references could

lead to the present invention. As such, these rejections under § 103 should be withdrawn for the same reasons as the rejections based upon the Laimpinen et al. patent by itself.

While this application should now be in condition for allowance, in the event that any issues should remain after consideration of this response which could be addressed through discussions with the undersigned, then the Examiner is requested to contact the undersigned by telephone for that purpose.

Respectfully submitted,

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